CLAIMS.

- 1. A volume hologram recording material comprising as constituents a polymer matrix having a three-dimensional crosslinking structure, a polymerizable monomer, and a tertiary amine compound, the polymer matrix being formed in the presence of the polymerizable monomer by a polymerization reaction that is different from a polymerization reaction of the polymerizable monomer.
- 2. The volume hologram recording material according to Claim 1, wherein the polymer matrix having a three-dimensional crosslinking structure has a reactive group that can copolymerize with the polymerizable monomer.
- 3. The volume hologram recording material according to Claim 2, wherein the polymer matrix reactive group that can copolymerize with the polymerizable monomer is a (meth)acryloyl group.
- 4. The volume hologram recording material according to any one of Claim 1 to Claim 3, wherein the polymer matrix is formed by addition polymerization of a polyol and a polyisocyanate.
- 5. A volume hologram recording medium for recording, by means of refractive index difference, interference fringes that result from the interference of coherent light, the medium comprising a recording layer having a thickness of 100 µm or greater, and the recording layer comprising the volume hologram recording material according to any one of Claim 1 to Claim 4.